

CLAIMS

1. A sealing material for liquid crystals produced by homogeneously dispersing fine particles (D) having an average particle size of not more than 3 μm in a reactive resin (C) having an epoxy group and/or a (meth)acryloyl group dissolved in a solvent (B) using a wet dispersion unit (A) in which a dispersion vessel (a) contains media (b) as dispersing media and a rapidly rotating stirrer (c) disperses agglomerated particles by allowing the media to collide each other in a high-speed rotating field; and then removing the solvent (B).
2. The sealing material for liquid crystals according to claim 1, wherein the wet dispersion unit (A) is of a continuous processing system.
3. The sealing material for liquid crystals according to claim 1 or 2, wherein said media (b) has a diameter of 0.1 to 5 mm each, and is made of any material selected from alumina, zirconia, zirconia-reinforced alumina, and silicon nitride.
4. The sealing material for liquid crystals according to any of claims 1 to 3, wherein the fine particles (D) has an average particle size of not more than 0.3 μm .
5. The sealing material for liquid crystals according to any of claims 1 to 4, wherein the fine particles (D) are inorganic fine particles (D-1).
6. The sealing material for liquid crystals according to claim 5, wherein the inorganic fine particles (D-1) are made of silica and/or alumina and/or titanium black pigment.
7. The sealing material for liquid crystals according to any of claims 1 to 6, wherein the fine particles (D) are organic fine particles (D-2).
8. The sealing material for liquid crystals according to claim 7, wherein the organic fine particles (D-2) are cross-linked rubber fine particles.
9. The sealing material for liquid crystals according to claim 8, wherein the cross-linked rubber fine particles are cross-linked rubber fine particles having a core-shell structure.

10. The sealing material for liquid crystals according to any of claims 1 to 9, which is obtained by further adding any one or more of additives selected from the group consisting of a curing agent, a curing promoter, a photopolymerization initiator, a polymerization inhibitor, a coupling agent, an ion scavenger, and an antioxidant, and then dispersing, and/or adding one or more of said additives after removing the solvent (B).
11. A method for producing a sealing material for liquid crystals, characterized by comprising homogeneously dispersing fine particles (D) having an average particle size of not more than 3 μm in a reactive resin (C) having an epoxy group and/or a (meth)acryloyl group dissolved in a solvent (B) using a wet dispersion unit (A) in which a dispersion vessel (a) contains media (b) as dispersing media and a rapidly rotating stirrer (c) disperses agglomerated particles by allowing the media to collide each other in a high-speed rotating field; and then removing the solvent (B).
12. A liquid crystal display cell sealed with a cured product of the sealing material for liquid crystals according to any of claims 1 to 10.
13. A method for producing a liquid crystal display cell composed of two substrates, characterized by comprising adding a liquid crystal dropwise inside the weir of the sealing material for liquid crystals according to any of claims 1 to 10 formed on one substrate, bonding the other substrate, and then curing the sealing material by light and/or heat.
14. A method for producing a liquid crystal display cell composed of two substrates, characterized by comprising bonding two substrates with the sealing material for liquid crystals according to any of claims 1 to 10, curing the sealing material by light and/or heat to form a cell, injecting a liquid crystal, and then sealing an injecting port with an end sealing material.